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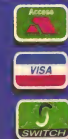
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# AMSTRAD ACTION

ISSUE No.114  
MARCH 1995  
£2.95

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next century!



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- **Reported:** All the fun of an All Format Computer Fair
- **Resolved:** All your CPC technical queries answered

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# Line-up

MARCH '95 ISSUE 114

AMSTRAD  
ACTION

## 12 Reach for the Future

Is your CPC past its use-by date? No! says Richard Wildey. With his advice, a bit of money, some new software and additional hardware you and your CPC could walk into, if not the sunset, then at least the year 2000 together!

**WIN** a Rom Box and ParaDOS!

## 18 The last word?

If word processing is your aim then the BrunWord Elite ROM Mark III is the name says the AA reviewer Angela Cook.



The future is yours!  
10 steps to successfully upgrading your CPC

## 17 All Formats Computer Fair

Looking for CPC goodies? Find them and more at a fair near you this year. Then turn to page 6 for your **FREE** ticket.

ALL FORMATS  
**COMPUTER  
FAIR**

## On your covertape...

### Ball Bearing

Fast things fast! This game will get your adrenaline and the joystick going!

### Masters of Space - The X-levels

A demo shoot-'em up to kill off the gaming opposition and test your extermination techniques to the full.

### Columbia

The squeeze is on. Fewer 3-inch discs,



hard disc space at a premium?  
Compress your files with Columbia.  
**Turn to page 5 now!**

## Amstrad Action

Future Publishing, 30 Monmouth Street,  
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E-mail aa@futurenet.co.uk



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## Regulars

### 3 Reaction/Amscene

We're picking up good vibrations...

### 4 Reader ads

Show your smalls to the CPC world.

### 5 Serious action!

Look hear! What's on your covertape.

### 6 What's happening!

We tell you where it's at and who's at it!

**FREE** ticket to this year's nationwide All Format Computer Fairs.

### 23 Back issues

If the cat ate it, your mate half-inched it, or you missed an issue, we can help...

## Serious stuff

### 10 Basically BASIC

Pack your torch, some ginger beer, get Timmy the dog, and head for adventure.

### 15 Hardware

Get caught in the Internet and you'll be hooked, says Richard Wildey.

**WIN** All you need to know about the Internet by Davey Winder.

### 16 Assembly line

Time please! Richard Fairhurst brings you a countdown routine.

### 21 Techy forum

INKEY making you blue? Having ups and downs with Crossword Compiler? Don't be 'azed' Richard Fairhurst runs circles round these and BASIC other problems.

## Leisure zone

### 7 Public image

Keith Woods got all Spaced Invaders out out but was still able to make awards - to other pieces of PD.

### 9 Further reading

Two 'zines. Both are to have; but only one is to hold!

### 20 Cheat mode

Not a pig in a poke but a tortoise. Turbo the Tortoise. And who's playing poker? Lee Rouane, with a little help from you.

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## Amscene directory

### PD Libraries

**Basic PD**  
3 Beacon Lane, Whipton, Exeter, Devon, EX4 8BD  
Cassette-only library. Dealing only in BASIC.

**Colrob PD**  
9 Aviemore Road, Hemlington, Middlesbrough  
Tape-only PD library.

**Demon**  
42 Overton Close, Hall Green, Birmingham B28 9NA  
3.5-inch discs available.

**GD PD Software**  
4 Connaught Avenue, Mutley, Plymouth PL4 7BX  
25p per disc. Free selection form the listings for four or more selections ordered.

**Image PD**  
Darren Dodds, 15 Elmwood Drive, Ponteland, Newcastle NE20 9QQ  
Also provides a digitising service.

**Jamo PD**  
01676 533467  
A two-side selection costs the same as one-side.

**PD Fun**  
Duncan Tissard, Folly Farm, Cold Ashton, Chippenham, Wilts SN14 8JR  
A policy of 'no serious software'.

**RSPD**  
Robert Sparrow, 40 Dee Court, Hobbayne Road, Hanwell, London W7 3RQ

**Sheepsoft**  
298 Holton Road, Barry, South Wales, CF63 4HW 01446 700730

### Fanzines

**Amxine**  
Gayton, Laneside Road, New Mills, Nr Stockport SK12 4LU 01663 744863

**CPC Mania**, £1.50  
**DMP Software**  
89 Wolverhampton Road, Codsall, Wolverhampton WV8 1PL

**The Eliminator**  
14 Station Road, Riccall, York, North Yorks YO4 6QJ  
Cheques payable to J R Naylor. Or send 50p.

### User Groups

**UAUG (United Amstrad User Group)**  
01329 234291

**WACCI**  
01244 534942

### Indie Software Companies

**Campursoft**  
10 McIntosh Court, Wellpark, Glasgow G3 1HW 0141 554 4735  
**Crystal X Software**

11 Vicarage View, Redditch, Worcs B97 4RF  
Stellar Outpost, £2.99 (tape), £3.99 (disc). Cheques payable to A Swinbourne.

**DMP Software**  
89 Wolverhampton Road, Codsall, Wolverhampton WV8 1PL  
Send SAE for catalogue.

**Pacific Software**  
37 Trimmingham Drive, Bury, Lancs BL8 1JW  
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0121 876 7032  
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### Hardware

**Datel** 01782 744707  
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**Romantic Robot** 0181 200 8870

**STS**  
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### Software suppliers

**OJ Software** 01257 421915  
**Computer Cavern** 01628 891101

**STS**  
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**Tronics North**  
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PO Box 7419, Garbutt, Queensland, Australia, 4814  
Large supplier of software and CPC bits.

### Mail Order

**Trading Post** 01952 462135

**Trojan** 01554 777993

**Wizard Games** 01723 376586,  
01723 503299

### Upgrades/Repairs

**HEC**  
47-49 Railway Road, Leigh, Lancs WN7 4AA  
01942 261866

LETTERS

3

# Reaction

Write to us at: Reaction, Amstrad Action, 30 Monmouth Street, Bath, Avon BA1 2BW or e-mail us at aa@futurenet.co.uk putting 'reaction' in the subject line.

## A bit of a pig?

Do you know if you can get discs for pig records, farm accounts and VAT for the CPC6128?

Stephen White, Dorset

Erm, well any CPC home accounts package (like Mini Office or Money Manager - both available from OJ Software 01257 421915) will help you with your farm accounts. As for 'pig records' there's nothing on the CPC that I know of, but how about Suede with We Are The Pigs? AA

## Look! No join

I would like to say thank you for saving me money. If it had not been for your magazine, I would have bought a new computer years ago, but after buying AA for the past six years my Amstrad and I are inseparable.

Jordon Low, Montrose

Sounds like you should see a doctor. AA

## Curriculum Vitae

Name	Deian William Lye
Date of birth	18/7/73
Personal profile	I am a determined worker punctual and reliable. I can learn new skills easily and will always work to the best of my ability in any field.
GCSEs in	English Language Literature Maths Drama Art RE Geography Business Studies Applied Sciences
GCSE A-Levels	English Language Theology Maths
EMPLOYMENT	CH Printing Reprographics Technician Photographic Plate Maker
INTERESTS	Reading, writing, weight training, music, tennis and drawing.
REFERENCES AVAILABLE ON REQUEST	

Er, well, we received this CV without any covering letter so we're not sure what Deian's after, but if he sounds like the bloke to fill your vacancy, get in touch with us here and we'll start up the AA employment agency. AA

## Getting particular?

Instead of the usual mixed bag of stuff in AA perhaps each month you could cover one particular area of software.

So one month you would concentrate on, say, platform games, showing the best and worst of them. Cheat mode could be devoted to doing tips for platformers while the Type-ins could return and include some simple platformers. You could also show us how to write platformers in BASIC and Machine Code. There would, of course, be platform games included on the covertape.

The following month you could do a similar thing but covering a type of serious software and how to get best out of it. The third month could cover a different type of game.

I don't know what other readers feel about this, but I think it could work.  
Tim Gormley, Devon

It would certainly be a complete change of style. Well, what do the rest of you think? AA

## Under construction?

I wondered what happened to the Zack Construction Set Simon Forrester reviewed in AA97? I haven't been getting AA for a while (why not? - Ed) and I didn't see if it came out.  
Stephen Denison

No Zack, an arcade game construction kit, never came out. And considering it was being developed by Quantum Computing, if it had, nobody who ordered a copy would have seen it. Maybe it never existed... Or was never going to exist. Shame, really, because it was a great idea, and similar packages on the C64, like The Shoot-'Em-Up Construction Kit, have been very popular. Somehow, 3D Construction Kit just isn't the same. AA

## Obviously a kneed

Please resurrect the AA small ads section To many die-hard CPC-ers this is the only way of obtaining software which cannot be obtained for love, money, nor threats of knee-capping.

I understand that it must be a struggle deciding which items must go, but the small ads section was often the answer to my prayers. Please bring it back!  
Sapleaf the Elf

Turn the page of this very issue and you'll see the Reader Ads section. And we'll keep on featuring them as long as we continue to get a good response, so write in and let the CPC world know what you've got or what you are after! (If this was the USA we could write: You know it makes cents!) AA

## Steven Who?

Spielberg has rescued Doctor Who, apparently. Perhaps we can get his new company (the one he formed with David Geffen and Jerry Katzenberg) interested in CPC games?

Pete Hemmersley, Carlisle

March 1995 AMSTRAD ACTION







# What's happening...

## FAIR'S FARE AND FREE WITH AA!

For CPC bargains try an All Formats Computer Fair. You'll find cut-price goodies – both second-hand and new.

The Fairs take place all over the UK and, in fact, they're jam-packed with every sort of computer hardware and software for 8-bit machines to the latest CD-ROM

technology. See inveterate bargain hunter Angela Cook's report on page 17.

You can get in for free! Just cut out the coupon below (photocopies are not acceptable) and hand it in at the door at the Fair of your choice. Dates are on the ticket. Good luck and have fun!

## ALL FORMATS COMPUTER FAIR - FREE TICKET WORTH £4

### MARCH

- 11 North East Northumbria Centre, Washington, Dist 12
- 12 Scotland Woodside Hall, St George's X, Glasgow
- 18 North West Haydock Park Racecourse, J23, M
- 19 Midlands NAC (Royal Showground), Stoneleigh
- 25 Essex Courage Hall, Brentwood, J28, M25
- 26 London Tolworth Recreation Centre, A3, Surbiton

### APRIL

- 1 North East Northumbria Centre, Washington, Dist 12
- 2 Scotland Woodside Hall, St George's X, Glasgow
- 8 North West Haydock Park Racecourse, J23, M6
- 15 Workshop Bassetlaw Centre, Eastgate
- 16 Midlands National Motorcycle Museum, J6, M42

23 London Tolworth Recreation Centre, A3, Surbiton

### MAY

- 6 North East Northumbria Centre, Washington, Dist 12
- 7 Scotland Woodside Hall, St George's X, Glasgow
- 14 Midlands NAC (Royal Showground), Stoneleigh
- 21 London Tolworth Recreation Centre, A3, Surbiton
- 27 Workshop Bassetlaw Centre, Eastgate
- 28 Midlands National Motorcycle Museum, J6, M42

### Conditions:

One ticket per person. Photocopies not accepted. Normal admission £4 adult, £2 children, £2 for all after 2pm. Wheelchair users free admission.

**ALL FORMATS COMPUTER FAIRS LIMITED**  
All Fairs 10am-4pm Redemption value 0.00001p

## Revival of the fittest

Remedy those annoying Disc Missing error messages yourself with the new 3-inch Drive Reviver Kit from SD Microsystems. The package includes a replacement drive belt, fitting instructions and cleaning fluid. The Kit costs £9.95. SD Microsystems, PO Box 24, Attleborough, Norfolk NR17 1HL ☎/fax 01953 483750.

## Printers to dye for?

SD Microsystems (see above) are now supplying a colour printer drive for Tasword and a special colour version of their Super Labeller program. All printer packages come with a suitable printer cable – please state which type you need when ordering.

## Conventional? WACCI?

WACCI is planning a convention in September at the Bescot Stadium, Walsall. Peter Cambell from Camputsoft is a likely visitor as are Sentinel Software and Brian Watson's 8-bit Mart. Invites have gone out to major manufacturers of CPC-related products and UAUG (United Amstrad User Group). Angie ☎ 01922 476293 or WACCI Editor Paul Dwerryhouse ☎ 01244 534942.

## Get on track

RoutePlanner is now available! Reviewed in AA108, ('the bottom line is, IT WORKS' – Dave Golder) costs £19.95 incl p&p on 3-inch disc.

OJ Software, 273 Mossy Lea Road, Wroughton, Nr Wigan, Lancs WN6 9RN ☎ 01257 421915.

## Still not satisfied?

If you can't find what you want to buy here why not try an All Format Computer Fair? Amstrad Action can make doing so even easier. In fact, by clipping out the ticket above you can go free. What is an All Format Computer Fair? AA reporter Angela Cook visited one recently. You can find out what she found and why she recommends them on page 17.

## AMSTRAD ACTION FREE READER AD FORM

Want some software? Want to get rid of something? You're in the right place. Fill in the details in the box below – one word to one box – and send it to: Reader Ads, Amstrad Action, 30 Monmouth Street, Bath Avon BA1 2BW.

Your name

Your address

Post code


## Reader ads

**New fanzine** Want to air your views? Will publish your opinions, articles, funny stories, etc, free of charge, best article wins a fiver. Hoping to print monthly 30-35 page fanzine together with covertape. After Dark, 41 Westmoreland Avenue, Newbiggin-by-the-Sea, Northumberland NE64 6RN ☎ 01670 855486.

**80,000 word Prospell**-compatible dictionary, spans three disc sides. Send two blank 3-inch discs, SAE and £1 to M Ruegg, 8 The Horse Park, Carrickfergus, Co Antrim BT38 7ED.

**Tuck PD** – we are still going! SAE to Matthew Tuck, 7 Carr Field, Eland Haugh, Ponteland, Newcastle-upon-Tyne NE20 9XR.

**Amstrad Users Club** contact us. Also games to sell, more than 500 top titles from £1.50. PO Box 8328, Athens 10010, Greece.

**WACCI** the UK's biggest and best serious CPC club. Send a 29p stamp to WACCI, 7 Brunwood Green, Hawarden, Deeside, Clywd CH5 3JA.

Berly, 5 Rue du Clos Moise, Jonquieres, France, 60680.

**Do you have anything for sale**, but need more than a couple of lines to get the message across? Do you have something to say but can't get it into print either because no-one finds it interesting enough or because you're finding the publishing costs a little out of your league? I am putting together a fanzine and would like to see what you have to say. I am offering the choice of one line or one full page free, Yes free!! Don't just sit there – do something. What have you got to lose? Best article every month gets a fiver!! Art work, type-ins, reviews, poems, cheats, tips, sales, wanted, pen pals, questions, proggy probs, demos, jokes, user groups, silly stories, cartoons, library mentions, fanzine mentions, etc... Young or old, if you have something you'd like to see in print, do something about it. If enough interest is generated I hope to put a monthly 30-35 page 'zine' together, possibly with the added bonus of a covertape! After Dark, 41 Westmoreland Avenue, Newbiggin-by-the-Sea, Northumberland NE64 6RN ☎ 01670 855486.

# Public IMAGE



Spaced Invaders: this game is s-l-o-w!

look all there in the screenshots – it's got legions of bad guys at the top, the good guy at the bottom and the barriers in between – but it's not. Despite the colour, what the screenshots don't tell you is that this game is slow. So slow, in fact, that it makes John Major look athletic. And when Space Invaders loses its speed, it loses its gameplay: the most important part in any game.

Sorry David, better luck next time around.

45%

## Tetrix vs Alinka

Tetrix by Thomas Alber  
Alinka by Eric Boucher

The PD is absolutely full of pointless Tetris games that are hardly worth mentioning. These two, however, are getting a brief mention for being a little better than the usual dross.

You all know far too well what Tetris is all about, blocks of various shapes falling from the top of the screen which you fit together to form lines... Both Tetrix and Alinka are

'You blocks, you stones...'

very well programmed versions of this game, but both have different strengths.

Tetrix' strength lies in its excellent two-player mode and wealth of features like the pre-prepared barriers in later levels. While Alinka lacks these features, it makes up for it by being faster and smoother.

These games may be good, but they still don't topple Facehugger's excellent Power Tetris, which, for my money at least (about 2p), is the King of the million PD Tetris clones.

Tetrix

82%

Alinka

70%

Keith Woods reviews an oldie but goodie, one held to be 'the best' and one which, to be honest, could do better.

## PowerPage 128 v1.2

By Richard Fairhurst

Powerpage has long been regarded as by far the most excellent DTP package available for your CPC and for a number of reasons...

- The price, or rather lack of it. PowerPage is available as PD ('almost PD' that is), despite being as good as, if not better than, most commercial desktop publishing packages.
- The wealth of features it offers. There are advanced text and graphics handling options, which are most important in a DTP package, as well as



PowerPage: more power to your pages.

hard work. However, when compared with the opposition it's in a class of its own, as the use made of it by various CPC fanzines proves. As long as they can ignore the off-putting ego trip buried in the instructions, budding DTPers need look no further.

88%

You can honestly describe PowerPage as both 'fast and friendly'.

## Where to go

PowerPage 128 v 1.2 is only available from Robot PD, 2 Trent Road, Oakham, Rutland LE15 6HF. Price £2.25. This includes the disc, but excludes p&p so enclose an SAE when ordering.

## Spaced Invaders

By David Hall

Oh no, here we go again. Why, oh why, oh why do people keep sending us further poor versions of Space Invaders when we've already reviewed some far better ones, such as Alien Attack (AA102)? I hope you know, because we sure don't.

This one is disappointing because it comes from such a good programmer.

Spaced Invaders may Right: it's disappointing.



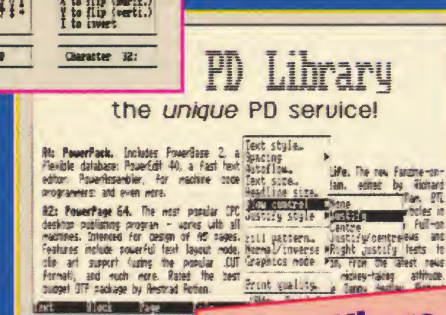
more extra features then you are ever likely to use. For example, mode 1 to 2 file converters, a review option and a graphic design utility.

● The ease of use. The term 'fast and friendly' is so often used by program authors that it has become a cliché, but in this case it is true. The whole program is controlled via a series of drop-down (or rather drop-up in this case) menus which even a five-year-old could understand. The menu bar only takes up the bottom line of the screen and a simple and unobtrusive cursor moves you around the rest of your workspace. The necessary keypresses are well thought-out and full instructions are included.

This all means that the only DTP package ever likely to supersede PowerPage is PowerPage itself, which is where the new version, 1.2, comes in.

Admittedly, there is little visible change between this and earlier versions, which isn't surprising given the level earlier versions had reached. Any changes which have been made are largely cosmetic, such as an increase in speed (especially in zooming) and making some of the tasks a little easier to perform. Therefore, it wouldn't be worthwhile for existing users to shell out any extra cash for the new version, which is okay, as Robot PD are offering version 1.2 free to existing owners anyway.

PowerPage does have its faults. For example, auto text runaround upon importing clip art would be nice (hint, hint), and importing text is unnecessarily



PD Library  
the unique PD service!



# BrunWord

## Mark 3 Elite ROM £79

The BrunWord Elite Mark 3 ROM module is identical in appearance to the Mark 2 ROM but hidden within is a huge chip with 512K of memory. It is equivalent to having 32 individual ROMs plugged into 5 ROM boxes. The Mark 3 ROM has all the features of the Mark 2 and a number of exciting additions.

## It's all in the Memory

The one big problem with programming on the CPC has always been the lack of memory. When Info-Script (our database) was added to BrunWord in 1988 it took over the memory used by the spelling checker, meaning that *either* the spelling checker or the database could be loaded with BrunWord.

When BrunWord Elite was released on disc in late 1989 it was supplied with seven 24 pin fonts, the current font being loaded from disc each time it was changed in the text. Then Headline (our 9 pin print enhancer) was released in mid 1990 which again competed for the spelling checker's memory. With the disc based system (now obsolete), the spelling checker, the database, Headline and the fonts were each loaded from disc, as they were needed.

In October 1991 we released the first BrunWord Elite ROM module and it was fitted with the largest ROM chip available. It had 256K bytes of memory which allowed all the programmes and fonts to be used with no disc delays.

The next year in June 1992 the Mark 2 BrunWord Elite ROM was released taking the ROM idea to its ultimate limit. Not only is the spelling checker there all the time, it actually operates while you are typing.

## Intelligent Script

Improving on the Mark 2 ROM was difficult, but large ROM prices have recently fallen. A simple printer with a brilliant font prints infinitely better than an expensive printer with the wrong font! So, we set about designing a new concept in fonts.

A script font joins characters together to give the appearance of neat handwriting, but some characters such as o a d g c require different linking depending on their position. We have designed a series of fonts and modified the driving programme so that these characters are changed as necessary to achieve a really good flow to the lines of text.

The Mark 3 ROM has a total of 23 fonts programmed into it, including four intelligent script fonts, a new series of modern over square fonts, smaller versions of the popular CHELMER and CLACTON fonts, and a set of large fonts for designing posters. Add to these a number of minor improvements, and the Mark 3 ROM is fantastic value for money.

## Mark 2 Elite ROM £63

The BrunWord Elite Mark 2 ROM module has 256K of memory permanently loaded with programmes and data. Word processor, spelling checker, 33,000 word dictionary, relational database, 9 pin print enhancer, 24 pin 'type setting' routines, 10 superb fonts, high speed screen dump and box drawing routines for 9 and 24 pin printers, and a powerful encryption system, all programmed into one high capacity ROM. The ROM is so fast that it checks the spelling of each word while you are typing and the price includes our 8 bit printer status port. No ROM box is needed.

## Spelling Checker

BrunSpell is a real time spelling checker meaning that it actually checks the accuracy while you are typing. The computer will 'beep' at each error. This inspires accurate typing and spelling, and it is so much easier to correct the error while the cursor is sitting on the word. Press F3 after a beep, ask for help, move down to the correct word and let the programme make the changes. BrunSpell can also be used in the conventional way and it checks at the unbelievable speed of 4,000 words per minute. The dictionary is an up to date English reference, with no American spellings.

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Info-Script is very simple to use and can be used immediately with no setting up. Even with 1000 names and addresses loaded into memory for instant reference, you can type a 10 page document in the word processor and your spelling will still be checked while you are typing.

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## Quotes

"It's totally brilliant...."  
Chris Knight (ACU Editor) - ACU Aug 1991.

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Rod Lawton (AA Editor) - AA Sept 1992.

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# Further reading

David Crookes presents an award for best-designed 'zine of 1995 (yes already!) and offers a panacea for CPC-related ills.

## News

Only one snippet this month... WACCI are offering a literally lip-smacking offer of three issues of their mag, WACCI, for only £3.

Make those cheques payable to WACCI and send them to WACCI, 7 Brunwood Green, Hawarden, Deeside, Clywd CH5 3JA

## Potential Difference

PRICE: £1

EDITOR: Christopher Lauri Goodswen

ADDRESS: 47 All Saint's Drive, North Wootton, Kings Lynn, Norfolk

PE30 3RX

## REVIEW

I have a question... Two excellent non-serious magazines have graced, or are continuing to grace, the underworld of CPC publications: *Artificial Intelligence* and *Potential Difference*.

They have two things in common. Both magazines really are:

- very funny and well-written; and
- even though they both are (or were, in the case of *Artificial Intelligence*), bi-monthly they only come out once in every blue moon.

One of the best games 'zines.

So my question is: why do we have to wait so long for the best indie 'zines?

The answer must, therefore, be that the editors are lazy but that's a shame.

*Potential Difference* is the best games 'zine around. This publication continues where *Artificial Intelligence* left off, which is cause for joyous celebration. Now, if only they could get their publishing act together...

It's not just the scribbles that make it good but the layout of the tab it's on. I hereby award *Potential Difference* the 1995 award for design.

Look at the texture and the pictures that just scream at you, grabbing you by the throat and



## The Beginners Guide

PRICE: PD (free)

EDITOR: Joe Moulding

ADDRESS:

9 Meeting

House Lane,

Balsall

Common,

Nr Coventry, West

Midlands CV7 7FX

New to computers? Suffering sleepless nights? Headaches? Nervous tension? Take a dose of the *Guide* as soon as you set up your CPC and let it take you on a journey through all of the scene's areas from public domain to fanzines to starting with BASIC. You'll soon understand what's what.

The *Beginners Guide* is not a comprehensive guide to using your CPC. It doesn't give extensive coverage to the finer points of actual computing



The *Beginners Guide*: stress-free CPC use.

yet - but, hey!, this is only a preview. What it does do is inform you of the best items available for your computer and describes certain nooks and crannies that you may wish to explore.

However, when *The Beginners Guide* is finally released it will have a jargon appendix and a full explanation of the Amstrad computer - surely of great assistance to newcomers.

The *Beginners Guide* looks quite good. There is obviously room for improvement but there is time for that and, in fact, Joe has mentioned that there is a list of additions to be made and these include a lot in the way of design such as different ink palettes and a proper menu with graphics and music.

The articles themselves are well written in a non-condescending style. I am positive that *The Beginners Guide* is going to be something special and well worth getting hold of.

Look for a full version from March. Try your local PD library, or if you get stuck, Joe direct.

## What is a fanzine?

Fanzines originated from the need to be heard. Ruffled by the establishment, people hit back by printing their own views on certain issues. The printed word has long been thought of as authoritative and to 'get into print' seems a more forceful means of being seen to be heard.

Fanzines are home-produced magazines which are not part of a large publishing company. The publications owned by a large concern all have the same overheads. In fact, fanzine production is more costly than magazine publishing because fanzines don't sell as many copies on the newstands so, therefore, economies of scale aren't applicable.

'Zines became more popular due to football. Not content with the bland drivel that the official football programmes were delivering, fans took it upon themselves to grab a few mates, some glue, pens and paper and organise access to a photocopier to produce an alternative outlet. Football fanzines are full of opinions and ego trips and are often very, very funny.

The CPC fanzine revolution took place only recently. A combination of the cheap DTP package, *Powerpage*, and the fall in the number of newstand CPC magazines meant people were ready to offer their own productions. Adam Peter's fanzine special in AA a couple of years back helped things along as well.

Amstrad 'zines vary considerably. There are specialised ones dealing with purely serious items and a few all-rounders. Disczines have become popular, especially on the continent, because, as no photocopying is involved they are cheaper to produce.

Independent productions are definitely here to stay, especially with the CPC. Even your favourite CPC magazine *Amstrad Action* may one day disappear and should that happen fanzines will surely attempt to fill the massive gap that would leave.



# Basically basic

**Strapping on big backpacks and donning their muddiest DM's that ever intrepid AA duo Rob Buckley and Angela Cook jump, feet first, into our tutorial on adventuring.**

BASIC may not be the ideal way of writing superfast arcade games, but when it comes to adventures, speed is not important. BASIC can produce effects as good as those in commercial games.

Adventures are, after all, just text. But the kind of text in which the author leads the player on a set path which builds up into a story: the best adventures being the best yarn not the best programming. The listing given is a very simple adventure and not really a game in its own right, but the start which can be added to and refined. All the major pieces of code required are here and others, such as inventory, are quite easy to add. These are a few of the routines and how to use them...

There is a printing routine at line 9000 which prints an entire sentence, separating it into words and checking that it doesn't overspill the line. If a word does cross the end of the line it automatically shifts to the next. This routine works on the contents of AS, and anything to be printed has to be copied to AS first using the standard AS=LOC\$(3). You use the same routine to check sentences and store them as separate words into an array CMS(), which you need when you enter a sentence. To use this instead of printing you make the variable GETWORDS equal 1, and 0, to turn it back.

Now that you can communicate with the CPC you need something to say. You do this using both numeric and string arrays. For instance all text adventure have locations, which are normally pieces of text which describe an area. Other arrays are those for Objects.

Objects are the things which are manipulated during a game, and from where most of the puzzles are derived, for example, how to open a door. Like the real world, objects can have many characteristics, and adventures seek to mimic these in a realistic way.

Some games are very advanced and try to give objects all sorts of built-in features like weight, size and eatability, but which for the sake of simplicity were going to make your object either takable or not. For this reason you need a number of arrays just to cope with objects.

OB\$( ) - Object name, for example, "TEAPOT".  
OX\$( ) - Detailed description, for example, "Gold coloured teapot".

OB( ) - Object location. This is normally the location number the object is in or 100 if held by the player.  
OT( ) - Object takability, 1 being takable and 0 untakable.

In line 110 there is a list of commands each

followed by a number. A list of words such "look at %o" is used to capture the user input "LOOK AT DOOR". The %o is used when a variable object name is expected. The number represents the command value, as some verbs have different wording but mean the same like "PUT ON HAT" or "WEAR HAT".

## What a plot you've got!

And here it is. But first apologies... You could be charitable and blame the 'spacey' presentation on the influence of cosmic activities (or alternatively, the 'vacuous' mind of the Production editor- Ed!). Back to our usual straitlaced format next month!

```
5 DIM CM$(20):MODE 1
10 L$(1)="In a small farmhouse, with a cosy fireplace"
20 L$(2)="out in the garden, the sun beating down"
40 ob$(1)="door":ox$(1)="a big door which belongs to a farmhouse":ob(1)=1:ot(1)=0
50 ob$(2)="teapot":ox$(2)="a teapot of normal disposition and size":ob(2)=1:ot(2)=1
100 numofverbs=9:RESTORE
110:for f=1 to numofverbs:read verb$(f),verb(f):Next
110 DATA examine %o,1,1,take %o,2,look at %o,1,look,3,drop %o,4,open %o,5, close %o,6,in,7,out,8
200 loc=1:numofobj=2:gosub 2000
1000 er=0:for f=1 to 10:cm$(f)="" :next:line input "What now":cm$
1010 getwords=1:a$=cm$:gosub 9000:words=w:getwords=0:q=0:if words=0 then 1000
1020 for f=1 to numofverbs:if cm$(q)=upper$(mid$(verb$(f),1,1,EN(cm$)))then 1100
1030 next f:a$="I didn't get that":gosub 9000:goto 1000
1100 e$=mid$(verb$(f),LEN(cm$(q))+2,255):q1=q
1110 q=q+1:a$=instr(e$, " ") :if a=0 then a=254
1120 d$=mid$(e$,1,a-1):e$=mid$(e$,a+1,255):if d$=""%o"then gosub 1200:
if er=1 then 1000 else 1140
1130 if upper$(d$)(1)<>"GOTO" THEN GOTO 1030
1140 IF E$="" THEN 1500 ELSE 1110
1200 OBJ=0:FOR G=1 TO numofobj:if cm$(q)=upper$(ob$(g))then obj=g:if ob(g)<>loc and ob(g)<>100 then a$="I can't see the "+cm$(g)+" here":gosub 9000:er=1
1210 next:if obj=0 then a$="I don't get "+cm$(q)+"!":gosub 9000:er=1
1220 return
1500 command=verb(f)
```

These could be given the same command value.

When a user inputs a line, the program between 1000-1290 checks the wording fits within the syntax of the command list. If it does it jumps to 1500 - the home of the variable COMMAND and OBJ (if necessary). Now all you have to do is check for your situation. Look at the listing between 1500 and 1990 and work out what each line does. After a while adding new lines and puzzles becomes easy, especially if you define specialist variables such as DOOR, SMASHWINDOW or EATENHEDGEHOG.

```
1510 if command=3 then gosub 2000:goto 1000
1520 if command=1 then a$="You find "+ox$(obj):gosub 9000:goto 1000
1530 if command=4 and ob(obj)=100 then a$="You drop the "+ob$(obj):gosub 9000:goto 1000
1540 if command=2 and ot(obj)=1 and ot(obj)=1 and ob(obj)=loc then ob(obj)=100:a$="You take the "+ob$(obj):gosub 9000:goto 1000
1550 if command=5 and door=0 then door=1:a$="You pull on the door and it squeaks open":gosub 9000:goto 1000
1560 if command=6 and door=1 then door=0:a$="You close the door":gosub 9000:goto 1000
1570 if command=8 and loc=1 and door=1 then loc=2:ob(1)=2:gosub 2000:goto 1000
1580 if command=7 and loc=2 and door=1 then loc=1:ob(1)=2:gosub 2000:goto 1000
1990 a$="You can't do that yet!":gosub 9000:goto 1000
2000 REM *** LOOK ***
2010 a$="You are "+l$(loc):gosub 9000
2020 a$="You see a ":for f=1 to numofobj:if ob(f)=loc then a$=a$ ob$(f),",a"
2030 next:if len(a$)<10 then a$=mid$(a$,1,LEN(a$)+3):gosub 9000
2090 return
9000 x=1:f=1:w=0:a$=a$+" "
9010 c$=mid$(a$,f,1):if c$="" then print:return
9020 b$=b$+c$:f=f+1:if c$="," or c$="." then 9040
9030 9010
9040 if len(b$)<2 then b$="" :goto 9010
9052 if getwords=1 then cm$(w)=upper$(mid$(b$,1,1,EN(b$)+1)):w=w+1:b$="" :goto 9010
9053 if x+1>len(b$)+40 then print:x=1
9055 locate x,25: b$=x+1:en(b$):b$="" :goto 9010
```

## On the run

Check the program is correct using TypeChecker. See AA113, page 17.

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## Next month:

In a pathetically commercial act, next month's article is a basic Cindy Crawford simulator which appears in pop-up format (or what about featuring Hugh Grant? - Angela).



# REACH FOR

**Can the CPC hold its own with today's computers?**

**Richard Wildey says it can and tells you how...**

**W**hen the CPC was released more than ten years ago to a star-studded audience of namesakes such as Einstein and Shakespeare, the Amstrad was the best there was. But what is the situation today? Well, strap on a few bits of hardware, add some decent software and you are looking at a machine that will last for a good few more years.

## What hardware?

You need a 128K, preferably a 6128. Which means 664/464 owners should get a 64K RAM PACK and a 6128 ROM chip to replace the original. To get Locomotive BASIC V1.2 and the extra firmware calls to go with it replace the Amstrad 40009 chip (Amstrad 40022 on the 664) inside your computer with the 6128 chip number 40025.

On early machines the relevant chip was placed in a ROM socket and you can gently prise it out with a screwdriver. If, however, the chip is soldered to the board desoldering is not a risk worth taking

**Strap on some decent software and you are looking at a machine that will last for a good few more years**

unless you are confident of your soldering skills. As second-hand CPCs are so expensive at present it makes sense to get a new machine for a little more money. If you own a 464 Plus you have this chip.

However, even as the owner of a 464 Plus you can't say you have a computer to take you to the next millennium. Tapes are slow and unreliable and impractical for data storage. What you need are disc drives and not those 3-inch affairs that dear

Alan Sugar decided would be best. The ultimate CPC needs a 3.5-inch disc drive if you are to have an ounce of compatibility with the outside world.

Siren sell a 3.5-inch disc drive as an A: drive for the 464, however, like all the Siren drives it doesn't come with a side switch. Having a side switch on your disc drive gives you the best of both worlds. You can have two sides formatted to 178K as standard AmsDOS format or using an extended operating system to give you a massive 800K side.

## Which software?

Which operating system should you choose to take full advantage of the 800K capacity of a 3.5-inch disc? Such an operating system can only be used to full effect on ROM which requires a Romboard. Most Romboards have six or eight slots, though Campursoft are releasing a 15-slot beast of a Romboard, look out for a review in AA soon.

With your new disc operating system in place you still have a minimum of five slots to fill - I'm sure you can find some decent software to use the space. There are many operating systems on the market to choose from. I've always preached the excellence of RomDOS but now ParaDOS has got a Campursoft behind it, and instructions by STS, it seems more appealing than ever.

Yes, I've been converted, ParaDOS is the one for me. Parados gives you all the advantages of RomDOS and MS800 in one operating system on ROM along with a few nice disc utilities including a file copier which copies across different formats with ease. In fact ParaDOS can handle 22 different formats. Issuing the RSX to induce the ParaDOS disc utility brings up a program reminiscent of X-tree on the PC which allows you to copy, erase, format, unerase and change the attributes of any file or multiple files by a process of tagging. ParaDOS also enables 'software side-switching' which means that without a physical side switch you can read and write to the second side of a 3.5-inch disc - useful if you have a Siren drive.

## PC compatibility

All that's missing is the ability to read MS-DOS discs. The programmer mentioned something about wanting to do this but never got round to

it, so your first disc piece of software must come in here. Come on down Doscopy.

This program by Andreas Strojcek, author of the amazing Facehugger mega demo, has written the most comprehensive PC disc reader available and one that kicks the commercial versions such as 2-in-1 into touch.

This program is shareware, so you find

it in good PD libraries. Shareware means, that, if you like the program and use it, you send the author an agreed amount (small) of money.

Such software means you can now copy files to and from the Apple Macs and PCs you may be using at work or college. This is most advantageous with text files. With the PC version of Protext you can convert files to and from the CPC version of Protext and keep all your control codes in tact.

The PC version of BrunWord, however, imports CPC files without the need for an intermediary copier as Y-Disc. An extra for PC BrunWord allows you to read, but not write to, CPC disc of data, RomDOS

**The ultimate CPC needs a 3.5-inch disc if you are to have an ounce of compatibility with the outside world**

D1 and D2 formats. This is easier and the word processor supports graphics unlike Arnor's more user-friendly version of Protext on the PC.

PC BrunWord imports CPC ASCII files as well as CPC BrunWord files - useful if you are fortunate enough to own the CPC's BrunWord ROM Module (recently cut reduced to £63). This Module is more than a text editor - it's a whole page layout system. It's like having Protext, Pro-Spell, Pro-Print, Pro-Ext,

Pro-Type all on ROM in one compact box. The main advantage of the BrunWord Module is that,

rather than having an integrated suite of Arnor ROMs, you have the whole BrunWord word processing package on one cost-effective 256K ROM Module perfectly sealed in a stable package. The fact that it is sealed means you don't need a ROM box. Really, the only downside of the hardware aspect of this is that the ROM Module has no through connector.

What's BrunWord like as a word processor though? Well, if you have Protext and are happy with it don't change. If, on the other hand, you are still using Tasword or are confused by the myriad of Protext add-ons BrunWord could be for you...

Creating professional-looking pages with graphics and headline fonts is relatively simple with the large range of examples given on a supplementary disc. Another area in which BrunWord beats Protext is spell checking. It spellchecks as you type and has the fastest search of a dictionary of 33,000 words of any CPC word processor. A contributing factor to this speed is the fact that the dictionary is held in ROM which means no disc swapping. The question you must be asking is: Does BrunWord beat Protext?

It all depends what you are looking for. Judged purely as a text editor Protext wins because of its ease of use but if you intend printing what you write and want it to look professional BrunWord could be what you are looking for.

A brand-new version, the BrunWord Elite Mark III ROM Module has just been released (see pages 18-

19 for a review by Angela Cook). The new version gives you 13 additional fonts as well as metamorphic script fonts which leave no ragged joins of letters, together with twice as much memory as came with the Mark II.

## Output

With careful use there is no reason why your output shouldn't look as good as results produced using a £1000 PC. However, to maximise the potential of these programs, of course, you need a high-quality printer.

When buying a printer for your Amstrad look for one which is Epson-compatible. The printer doesn't have to be made by Epson but must be compatible. You can print plain text on printers that aren't Epson-compatible but to print graphics you need printers which are. For instance, with the right printer driver, which you would have to write yourself, you can use a HP 500 deskjet and all the built-in fonts to print text.

High-quality printers to go for are inkjets, lasers or at least a 24-pin dot matrix. Gone are the days when the dotty copy from your DMP2000 looked professional. Remember that, unlike the computer, the printer can be salvaged and used with whatever you might eventually choose to upgrade to.

The Cannon BJ10ex is an example of a good compact inkjet printer and, in my experience, this model is reliable and good value for money. You can get 24-pin dot matrix printers all over the place, the Citizen ABC and the Start LC100 cost less than £200 and give satisfactory output. Laser printing is possible on the CPC but you must be sure to buy a printer that has Epson 24-pin compatibility - check that this is the case before you buy.

Colour printers are available, as is the software to allow you to print graphics such as Colour dump 3 and the Goldmark version, the Stardump, but most CPC users won't need colour output.

## Doing your homework

So far your CPC set-up is printing out letters and reports that are professional-looking and which you can bring home from the PC at work. But, what happens in the event of your wanting to calculate figures and sort data at home?

**Spreadsheets are overgrown calculators where you enter figures into cells and which enable you to perform complex functions on figures**

What you need is a spreadsheet. Spreadsheets are overgrown calculators where you enter figures

# THE FUTURE

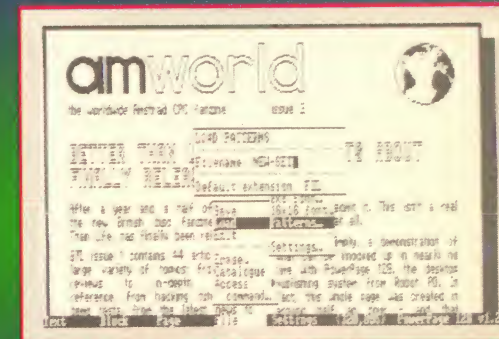
**The I-spell spell checker. But remember spell checkers are difficult to use!**

ISPELL is an interactive spell checker for #SCI complete with its own dictionary of 6461 words. The dictionary is held in the Second Bank of Ram on the CPC6128 and the program, together with the program, are held in First Bank of Ram.

The program uses BRUNMAN.BIN to access the Second Bank of Ram and must be copied onto your working ISPELL disc.

The size of the dictionary is limited by the 64K Second Bank of Ram and by the maximum length of words, 13 characters being my choice as the maximum.

This gives you the ability to try out various formulae to maximise profit, for example, as well as to keep your accounts in trim. There are



**PowerPage 128: become a media magnet!**

quite a few spreadsheets around for the CPC and if you are a regular reader of Amstrad Action you should already have one of the best, Mastercalc, as we gave it away on the covertape of AA95. (Check the readers ads pages in AA if you missed it.)

Mastercalc lets you enter a maximum of 7000 cells and give you the ability to draw bar graphs of your data. If you want a little more graphical power opt for Matrix which lets you display pie charts, bar charts and line graphs of your data. Alternatively, you could let an independent program do the work for you, Graph-Master, for example.

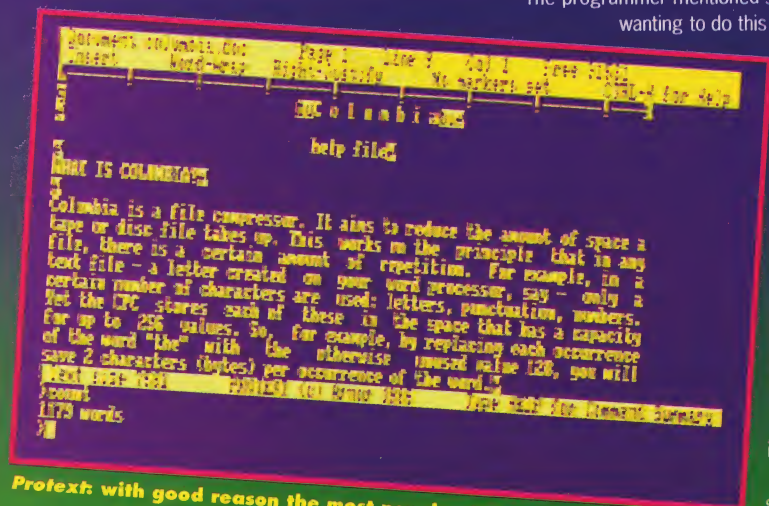
Graph-Master from SD Microsystems lays out the figures in just about any presentable format you care to choose.

Databases rescue you from swimming through wads of paper on which you keep large amounts of records. Masterfile 3 is the most comprehensive, fastest, all-singing and all-dancing database program around. Perhaps a little on the expensive side, nevertheless Masterfile 3 can handle thousands of records more efficiently than any CPC database.

## On a budget?

Nobody ever said that the ultimate CPC would be cheap. So here are some ways to cut the costs...

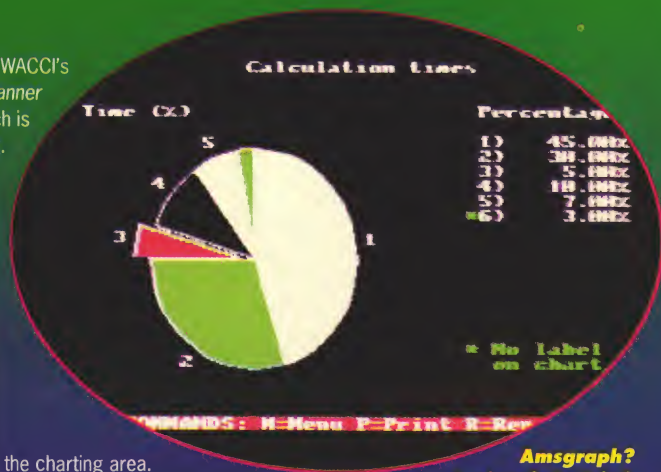
It has been said that whatever program you can think of there is a public domain alternative for it. This is especially true on the utilities front. In fact, you can almost say that there are PD programs you won't find commercially and PD programs which are



**Protext: with good reason the most popular CPC word processor.**



library. From the author of I-Spell, WACCI's Paul Derryhouse, we have PD Planner the PD answer to MasterCalc which is a fair match for number crunching. Graph-Master may do its job well but Amsgraph should well satisfy your needs in



the charting area.

As for the

subject of

databases, in this

somewhat

flooded market,

my vote goes to

Rambase 3. However, as we reported in AA112

Rambase 4 is now on the way and if this program's

predecessor is anything to go by you can be sure that this follow-up is almost guaranteed to be good.

### So whaddya say?

The CPC is a great computer! Just because everybody else has been blinded by the likes of Microsoft doesn't mean you should.

Stick with your CPC and keep reading *Amstrad Action*. If you continue to invest in your

CPC, and as long as commercial

companies and PD support it, it

should meet your needs –

into the future. So, until

you find your CPC

is not doing what

you need,

don't give

up on it!

Amsgraph?  
A pizza? Or Triv?

## Where to go shopping for the ultimate CPC

Product	Format	Price	Supplier	Phone
<b>HARDWARE</b>				
64K RAM Pack		Check the AA small ads		
3.5" disc drive		£70	Siren Software	☎ 0161 796 5279
Rom Box		£35	Campursoft	☎ 0141 554 4735
Stardump		Call supplier	Goldmark	☎ 01707 321711
<b>ROMs</b>				
ParaDOS		£15	Campursoft	☎ 0141 554 4735
Brunword Elite				
ROM Mark III Module		£63	Brunning Software	☎ 01255 862308
<b>SOFTWARE</b>				
GraphMaster	Disc-only	£15	SD Microsystems	☎ 01953 483750
Masterfile III	Disc-only	£30	OJ Software	☎ 01257 421915
MasterCalc 128	Disc-only	£28	OJ Software	☎ 01257 421915

### NEXT MONTH:

Win a copy of BrunWord!  
Read Angela Cook's comparison of word processing packages.

# So why do you need a modem?

Talk can be even cheaper says Richard Wildey as he puts the case for comms.

Wherever you go you can't miss the bulldozer laying the tracks for the 'Information superhighway', (see AA105) the paperless future in which everyone works from home and communicates with other people across commuter networks. At least that's the theory.

All this is being made possible via the Internet or the 'net' as it is known in one of many attempts to make the whole affair more appealing to the public.

Your CPC can chug along the hard shoulder with a bumper sticker truthfully stating: 'size isn't everything'. Because, although you can't get on to the colourful Hypertext World Wide Web system, in the ever standard world known as ASCII all computers are equal and your CPC can give you access to e-mail (electronic mail), bulletin boards (BBSs), MUD's (Multi User Dungeons), Fidonet (an e-mail network of amateur BBSs), and Usenet Newsgroups (Internet e-mail conferences).

These is some of the jargon modem (the hardware you need to make the Internet work for you) users employ when they talk. Thankfully, once you are on-line there are people and information files (FAQ's, Frequently Asked Questions), to help you.

Bulletin boards are computers systems run by individuals, who are known as Sysops (short for systems operator), which you can connect to with your modem. A BBS offers two main services:

- the ability to download public domain software and shareware files, together with...

### Service providers

All of the following provide a terminal-style connection for the CPC to the Internet.

Aspects on-line address ☎ 0161 792 0260.

CIX ☎ 081 390 8446,

on-line address: ☎ 081 390 1255/1244.

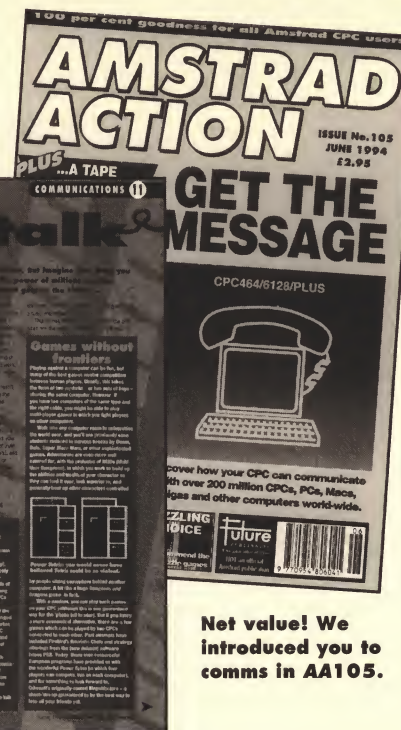
CompuServe ☎ 0800 289378.

Delphi Internet ☎ 0171 757 7150.

Direct Connection ☎ 0181 317 0100.

### Next month:

Richard Wildey tells you why you need a Rombo Vidi Digitiser and explains what it is!



Net value! We introduced you to comms in AA105.

- access to a large range of message groups.

While it is true that the files you can download are largely for the 16-bit machines don't forget that the CPC can use CP/M programs and read all ASCII text files. There is even a bulletin board which caters for the CPC – Aspects BBS. When downloading from PD libraries the file may be compressed. If it is you need the relevant decompressor for the CPC which will run under CP/M – check with the PD library.

E-mail messages are sent across networks to the intended receiver's computer, usually in a matter of seconds. (E-mail is likely to cause the demise of postal mail, or snail mail as e-mail disciples like to sarcastically call it.) The advantage of e-mail, of course, is that it is quick. There is, however, another plus point: using e-mail it is also very easy to quote from the original message.

Another way of communicating with humans is through MUD's or games. These are adventure games that are played by several people at once. The people you meet are real people on the other end of a phone line who you can talk to and interact. While the plots vary, of course, from game to game, as your text-based adventure always does, having real people to play with adds something extra. However, the price can be high because on top of your normal telephone call charges, in most cases, you have to pay a subscription fee, too.

Fidonet is a system in which many BBSs exchange messages. Fidonet is linked to BBSs, large and intercontinental, although it is not as widespread as the Internet. However, you are more likely to get a British response though Fidonet.

Fidonet contains many different areas in which

topics are discussed, known as echoes. There is an Amstrad echo which is not devoted to CPCs but is open to discussion of all Amstrad products. This means that the Notebooks and PCs are discussed but, in fact, the contributors are mostly veteran CPC users such as WACCI's Peter Ceresole. The Internet equivalent is the Usenet Newsgroups of which there are thousands ranging from the informative, through the radical, to the downright ridiculous.

In between is COMP.SYS.AMSTRAD8BIT. Here a few 'famous' names in the world of the CPC can be seen talking about games, AmstradDOS and emulators.

Recent contributors to the group include Richard Clayton of Locomotive Software, Marco Veith, who wrote the PC CPC emulator.

Another Usenet Newsgroup that is also of relevance is COMP.OS.CPM where all matters of the CP/M operating system are discussed.

To access these newsgroups you need access to the Internet. Standard bulletin boards won't give you such access although they will allow you to use e-mail. To get on to the Internet you have to go through a service such as CIX. CIX is an Internet provider and CPC owners can use it because it is text-only based.

Before buying a modem you need an RS232 interface then you need some software. ZMP and ANSI-Term are the best modem software for the CPC. However, you can only log on at a speed of 4800 baud so the connection price won't be cheap.

I recommend that you only log on at off-peak hours, read and write mail off-line and that you ask whoever pays the bill before you get into comms...

### I want to know more!

Try .net the monthly magazine for all things comms-related, £2.95 from newsagents. The March issue (right) is on-sale now... Go see!

Or try the .net Guides series – All you need to know about the Internet. Published by AA and .net publisher Future Publishing the series

comprises 12 books in plain English for people who are more interested in the Internet than in computers. Each book costs £7.95.

Titles include: *Getting On-Line*, *Communicating On-Line* and *Using the Net*.



Above, Rambase 3: everything a small business could ask for.

better than the commercial versions. Shareware Doscopy is an example of the latter

As for word processing there are a few PD text editors around. However, none provide you with the graphic capabilities of the BrunWord Module although VDE is a fine text editor and can cope with extremely large files. I-Spell takes care of poor spelling, though I personally prefer to call such mistakes 'typing errors'.

### Pageboys and girls

If it's page layout you want why not go one step further and go for a DTP package?

Powerpage 128, is a program which some people think beats any commercial rival and which is available from any good PD

WIN!  
WIN!  
WIN!

Answer the following question and win a Rom Box worth £35 or one of two copies of ParaDOS, RRP £15, courtesy of Campursoft. The dialling code for Campursoft is 041 so where is the company based? Send your answer on a postcard or back of an envelope stating which of the prizes you would like to win to Scot free, Amstrad Action, 30 Monmouth Street, Bath, Avon BA1 2BW by Tuesday, 28 March 1995.



# Assembly line

**Richard Fairhurst is hard at work on the assembly line so stop whatever it is you are doing and read this...**

One of the 'big things' about high-powered business computers – new PCs, Macs and so on – is that they multi-task. In other words, they can do more than one thing at once. A simple CPC, designed ten years ago and barely updated since, can hardly be expected to do this. Can it?

Not quite. But using the sophisticated 'interrupt' system provided by the firmware, you have the next best thing. As the name would suggest, this enables you to interrupt whatever the computer's doing at the time, and carry out some other task instead.

This month's routine does exactly that: it operates a countdown timer, which changes the border red when it reaches zero.

Okay, I know it's not the most practical outcome... Imagine that it's your Streetfighter hero dying horribly and soaking the monitor with his blood. Just use your imagination...

There are three main routines in the program.

- 'On', which turns the countdown timer on. You call it with HL containing the number of minutes to start from and A the number of seconds. These are now stored in the variables at the end of the program.
- The program then calls the firmware routine at &BCD7 to set up an interrupt. The address of the actual timer routine is held in DE and HL points to nine bytes of workspace (the 'event block').

B is a byte known as the 'event class', and C contains a ROM number, however, for an interrupt routine between &4000 and &C000 – 95% of the interrupts you'll ever need – just keep them as &81 and 0 respectively.

Actually, the interrupt routine is called 50 times every second. You only want the timer to tick down once per second. So a variable 'ticks', counts down from 50, and updates the timer when it reaches 0.

- The next routine turns the interrupt off. All you need to do for this is set HL to the address of the 'event block', and call &BCDD. Note that you modify the first byte of 'on' to &C9 – RET – when 'on' is called and set it back to 0 –

NOP – do nothing – when 'off' is called. This is so that you can't accidentally CALL 'on' while the interrupt is still on.

The main routine, imaginatively called 'rout' (you should get a job in Saatchi and Saatchi's product-naming department-Ed), first of all decrements 'ticks'. If it's not zero, then the routine returns: otherwise, the current value of the countdown timer is displayed by the sub-routine 'disp', a sub-routine which switches to window 7, calls a fairly standard 'print number' routine for the minutes and seconds, and switches back to the default window 0. The CPC's window system is particularly suited to this pseudo multi-tasking operation.

Finally, back in 'rout', check to see if the time is '0:00': If it is the border turns red and the interrupt turns off. You then decrement the seconds count and also the minutes, if the timer was previously at '00', and return from the routine.

A couple of provisos...

The main interrupt routine ('rout' here) should never corrupt IX or

IX, and needless to say, it shouldn't be too slow. If a routine is going to be executed 50 times every second, it needs to get its business over and done with so that the computer can return to the main program – be it BASIC, Protext or Chuckie Egg.

You might like to try rewriting this routine to maintain a clock in window 7. The basic principle is the same, except that you count up rather than down, and that you need to add an hour display. Other possible uses for interrupts include animation, music, and a message which appears every half an hour telling you to go away and have a break.

Actually, come to think of it...

## NEXT MONTH:

If all this seems like a bit of a departure from the usual game coding stuff, don't worry. Next month you delve into the insides of the Amstrad's interrupt system to find out how professional games are written entirely around interrupts.

## Timing it just right

```
Countdown timer
org &8000
nolist
;Routine to turn countdown on
;On entry, HL contains minutes } to set clock
to
;
; A contains seconds }
.on    nop
        ld (minute),hl
        ld (second),a
        ld a,2: ld (ticks),a
        ld a,&C9: ld (on),a
        ld hl,eventb
        ld b,&81
        ld c,0
        ld de,rout
        call &BCD7
        jp disp
;Routine to turn countdown off
.off xor a: ld (on),a
        ld hl,eventb
        jp &BCDD
;Event routine
.rout ld hl,ticks
        dec (hl)
        ret nz
        call disp
        ld a,(second)
        or a
        jr nz,notscr
        ld hl,(minute)
        ld a,h: or l
        jr nz,notscr
        ld bc,&0606
        call &BC38
        call off
        notscr dec hl: ld (minute),hl
        ld a,60: notscr dec a: ld
(second),a
        ld a,50
        ld (ticks),a
        ret
;Routine to display time on screen
.disp ld a,7: call &BBB4
        ld hl,&0101: call &BB75
        ld hl,(minute): call prhl3
        ld a,l: call &BB54
        ld a,(second)
        ld l,a: ld h,0: call prhl2
        ld a,0: call &BBB4
        ret
;Print HL as decimal number
.prhl3 ld de,100: call prhlr
        prhl2 ld de,10: call prhlr
        ld de,1
        prhlr xor a: prhlr or a: sbc hl,de: jr
c,prhlr
        inc a: jr prhlr
        prhlr add hl,de
        prhlr add _0_: jp &BB54
;Variables
.minute dw 0
.second db 0
.ticks db 0
.eventb ds 9
```

# all formats Computer Fair

**Summer is still only a display in travel agents' windows, so what have you got to look forward to? Well, All Format Computer Fairs for a start! Angela Cook has already been...**

It was a cold and rainy day and I did not want to get out of bed, but then I remembered I was going to a computer fair...

## The history

All Format Computer Fairs have been going for seven years. In the early eighties they were specifically for the Sinclair and called 'ZX Micro Fairs'. About 20 were held in London, then there was a gap of several years in which the computer industry drastically transformed into two separate markets: games and business. They were restarted by Bruce Everiss who decided to cover all formats, hence the current name...

## The show

When I arrived at the show it was already in full swing. It was set in a large sports hall and everything was well spread out. There were lots of stalls and lots of noise, but were there lots of CPC goodies?

As luck would have it, the first stall was that of GS Electronics staffed by Graeme Scarr. There was a box full of CPC games and more back at HQ. Graeme has a variety of Amstrad equipment...

"Oh, we used to sell a lot of Amstrad stuff, but we find we don't sell all that much now."

Well, that was hardly surprising when he keeps all the stuff hidden away in a box under the table! Graeme said he has a few thousand games to sell.

## The people

I also spoke to Mark Willis of Willis Enterprises. He had some Amstrad hardware to sell. Mark had an additional attraction on his stand – a lovely dog called Doyle. Willis Enterprises also does printer ribbons for the DMPs, STAR

printers (which he says are very popular), plus lots of other printers.

Oasis Computer Systems had a few bits and pieces of CPC-related goods including a number of manuals and some of the original games that come with the 464.

Oasis used to supply a lot of Amstrad goods but, like a lot of other people, are scaling down their projects. However, there are still 3" discs available and the woman staffing this stall had boxes of them. In fact, Yvonne Buckingham was selling them at just £1 a throw. Yvonne said:

"We are about the only people to guarantee every disc we sell, and will replace a faulty one free of charge."

Aside from strictly computer items, there were stalls concentrating more on general goods. Disc boxes, mouse mats, cleaning fluid, ink refills and so on. A rather nice chap, called Chris Salsbury, is one such supplier of computer consumables. There were

some others, but Chris was one of the all-round cheapest. Another is Neil Cappleman. Neil runs Video and Computer World and specialises in 8-bit computers. He goes to most of the shows, so if he's there his stall is probably worth a look.

I also spoke to a lady called Chemille who was looking for CPC equipment. She said:

"I come to all these places, and there is usually stuff around, you just have to look hard for it."

A man called Bryan, who looked like Paul Merton, said he had been coming to the fairs for years.

"When I first started coming to the All Format Computer Fairs, there was loads for the CPC but now there isn't all that much. It's just the luck of the draw, really, as to whether there is anything here."

## The conclusion

Was it worth going? Definitely. There was a variety of bits and bobs on offer. However, every computer fair differs. Some have mounds of CPC-related items, others have nothing.

# ALL FORMATS COMPUTER FAIR

GE SAVINGS FOR ALL COMPUTE  
10 a.m. till 4 p.m.

Admission £4 Adults, £2 Children, £2 All after 2 p.m.,  
THOUSANDS OF BARGAIN  
COMPUTERS • GAME CONS  
BUSINESS SOFTWARE • MONITO  
PUBLIC DOMAIN • SHARE  
COMPONENTS • USER GROUPS  
MODEMS and MUCH M  
STANDS AVAILABLE FROM C  
Ring (081) 856 84  
Organised by: BRUCE EVERISS



Mark: printers and a dog.



Yvonne: guarantees discs.

Bruce Everiss, fair organiser, keeps you posted.



Graeme: games to go.



Chris: one of the cheapest.

Fairs are definitely picking up again and getting better. Some other people were selling CPC equipment, one stall had loads and loads of stuff but preferred to remain anonymous...

WACCI, traditionally, a supporter of computer fairs is planning a convention in September (see page 6). I recommend that, if there's a show near you, go (see page 6 for a free ticket) especially if you have more than one type of machine. There are lots of savings to be made on all formats!

## Contacts...

GS Electronics: 0831 513996  
Willis Enterprises: 01684 569059  
Oasis Computer Systems: 01222 531270  
Chris Salsbury: 01865 883639  
Video and Computer World  
(Neil Cappleman): 0890 883232  
Woodpecker (Yvonne Buckingham):  
01293 871357

ALL FORMATS COMPUTER FAIR  
- FREE TICKET WORTH £4

FREE  
for all  
formats

AA have teamed up with Bruce Everiss to let you try an All Formats Computer Fair for free! Turn to page 6 now to find your free ticket.

Don't pass up on this offer!







# Cheat mode

**Bobby, Demi and Patrick. Yup! Lee Rouane's pokes give you just that little bit Moore of everything! Are you ready?**

## Living Daylights

Bobby Kelters, of Tyne and Wear starts us off this month with a shaken, not stirred, cheat for the *Living Daylights*. He suggests that hitting the key 1 with your little pinkie enables you to skip a level.

## Heavy on the Magick

Tim Ford from Harpenden, Herts. provides us with a magical tip for that spell-ridden adventure, *Heavy On The Magick*. To get high skill, stamina and luck, follow these simple steps to success...

- 1 At the start, pick up the grimoire and go east.
  - 2 Go east again, then south, then east once more.
  - 3 Pick up the loaf and go to options (if there is a monster in the room you have to move to another room before pressing options).
  - 4 Go to restore game and type any letter.
  - 5 Press escape to abandon and you find that option 6 has become available.
  - 6 Press 1 and you start again, but, with the same skill, stamina and luck you had after getting the grimoire and the loaf.
  - 7 Do steps 1-6 again until your skill is about 40.
  - 8 Now is the time to use option 6 to swap your skill and luck scores.
  - 9 Now carry on until your stamina and luck scores have reached 99.
  - 10 Now swap your skill to the number that was about 40 and everything else to 99.
  - 11 Then save your character. When you want to start playing, load your character and repeat all of the steps except number 1.
- Congratulations! You have now created a very powerful character.

## Turbo the Tortoise

Following in his father's footsteps, our next cheatster vows to continue the good work of his father (er, who's that, then, Shelley? - Ed).

Here is a taste of what's to come. *Turbo the Tortoise* is the victim and infinite energy the result.

JADK 100: Turbo The Tortoise Cheat  
IAJL 110: By Corey Jordan Parker  
JABE 120: The Notorius Cheatster  
JAOL 130: Nicknamed The Devil Child  
GAMJ 140: Infinite Energy  
IACF 150: 464 Owners Delete ITAPE  
DACP 160: In Line 320  
AAPN 170: V

GAAO 180: DATA 3E,00,CD,0E,BC,3E,01,CD  
GAJK 190: DATA 6B,BC,21,47,BF,11,00,48  
GABL 200: DATA CD,31,BF,CD,00,48,21,53  
GANX 210: DATA BF,11,00,48,CD,31,BF,21  
GAFX 220: DATA 1E,06,22,41,79,21,5F,BF  
GAKK 230: DATA 11,00,30,CD,31,BF,C3,3F  
GAOO 240: DATA BF,06,0C,DS,CD,77,BC,E1  
HAEB 250: DATA CD,83,BC,CD,7A,BC,C9,3E  
GAKJ 260: DATA 7F,32,F1,5D,C3,00,30,63  
GAJJ 270: DATA 6F,6D,70,73,63,72,20,2E  
GAEX 280: DATA 74,74,20,6D,61,69,6E,6C  
GANI 290: DATA 6F,61,64,2E,74,74,20,62  
GAMJ 300: DATA 6C,6F,63,6B,73,20,20,2E  
GAFI 310: DATA 74,74,20,32,F1,5D,C3,00  
HAGH 320: ITAPE:code=&BF00:READ:a\$  
HADP 330: a=VAL(\_R)+a\$:POKE:code,a  
IAJD 340: code=code+1:start=&BF00  
GAHC 350: OUT-&BC00,1:OUT-&BD00,32

## The multiface way

The (T)s and (D)s before the address indicate whether the poke was written for a tape or disc game (they might work on both, it's worth a try). Just in case you don't already know how to put in these black box pokes, here are the steps to success...

- A) Load the game as normal.
- B) Press the RED button on the MULTIFACE.
- C) Press II for tool.
- D) Press M to make sure you select the code.
- E) Press H for HEXADECIMAL input.
- F) Press SPACE for input.
- G) Type in the ADDRESS (4 characters ie. 3A7C)
- H) Type in the POKE (2 characters ie. A7)
- I) Press RETURN
- J) If there is more than one poke goto (F)
- K) Press ESC back to the menu.
- L) Press R to return to the game.

## Multiface pokes

Keeping those red buttons alive and kicking this month are Paul Stuart Williams and Fraser Clark. Keep them coming lads, you know we love 'em. And you get your names in print. Again.

Game Name	Media	Poke, Addr	Effect
Shadow Of The Beast	(T)	&2C09,&00	Invincibility
Tau Ceti (Special Ed)	(D)	&2D57,num &2D58,num &2D59,num	num=Number Of Missiles num=Number Of AMM's num=Number Of Flares
Cyberball	(T)	&24E9,&FF &24F6,&32 &24F7,&32	255 Minutes 50 Points For Player 1 50 Points For Player 2
Escape Planet RM	(T)	&4202,&A7 &CEB5,&63 &CEB6,&63	Infinite Credits 99 Bombs For Jake 99 Bombs For Duke
Xybots	(T)	&3D76,&63 &3D53,&63 &3D77,&63 &3D54,&63 &3D78,&63 &3D55,&63 &3D79,&1E &3D56,&1E &3D7E,&28 &3D5B,&28 &3D7F,&08 &3D5C,&08 &3D80,&66 &3D5D,&66 &3D81,&0F &3D5E,&0F &3D82,&16 &3D5F,&16	99% Energy (ACE) 99% Energy (ROCK) 99 Keys (ACE) 99 Keys (ROCK) 99 Credits (ACE) 99 Credits (ROCK) More Powerful Shot (ACE) More Powerful Shot (ROCK) Move Faster (ACE) Move Faster (ROCK) Better Shield (ACE) Better Shield (ROCK) Faster Shots (ACE) Faster Shots (ROCK) Better Shot Power (ACE) Better Shot Power (ROCK) Energy Goes Slower (ACE) Energy Goes Slower (ROCK)

# TECHY forum

**Burdened with CPC problems? Let Richard Fairhurst take the weight off your shoulders. Better now?**

## QUESTIONS AND ANSWERS



### Inkey fingers

I have a few problems which I hope you can resolve...

- 1 Could you print a list of direct hardware access ink numbers?
  - 2 How do I scroll the screen in machine code? I want a static status bar at the bottom of the screen, and I find the LDIR opcode too slow.
  - 3 What is the M flag all about?
  - 4 Is there a firmware version of BASIC's INKEY command? I normally use &BB09, but this only returns one key, so it's no good for checking combinations.
  - 5 What happened to Assembly Line in AA110? If it's been stopped, can you recommend a fanzine with a good machine code tutorial for competent-ish coders?
  - 6 How do you change the graphics pen in machine code?
  - 7 Do second disc drives for the CPC 6128 need a separate power supply?
  - 8 Due to a bug in one of my programs, a headerless file was saved with an unknown synchronisation byte. Is there any way of finding out what it is?
  - 9 If I try to set up an interrupt using &BCD7, and later try to stop it using &BCDD, it keeps on running. What's wrong?
  - 10 How do I tell how much memory a computer has from within a program?
  - 11 I suppose the machine code IN and OUT opcodes are the same as the BASIC commands, but what's all this a,(c) and c,(c) business about?
- Alistair James, Lowestoft



Er, Alistair, you said a 'few' problems... Heaven help me when you have 'lots!' Still, here goes...

- 1 Here they are, in firmware order (so black is first and bright white last): 20, 4, 21, 28, 24, 29, 12, 5, 13, 22, 6, 23, 30, 0, 31, 14, 7, 15, 18, 2, 19, 26, 25, 27, 10, 3, 11.
  - 2 You don't say whether you want to scroll the screen up, down, left or right. If it's down, set B to zero and call &BC4D. If it's up, set B to any value other than zero and call &BC4D. You should set A to the 'encoded ink' to which you want to clear the top/bottom line - 0 for ink 0. To scroll the screen left or right, first of all call &BC0B, increment or decrement HL (depending on in which direction you want to scroll), and then call &BC05.
- Try this and the status bar moves, too. Use LDIR to scroll it in the opposite direction to the

way you scrolled the whole screen, so that it goes back where it started. However, the screen address of the status bar changes every time you scroll the screen, so use &BC1A to find it out. On entry, H contains the column and L the row (in character co-ordinates from 0 upwards). On exit, HL contains the screen address.

3 There isn't an M flag, so you probably mean the sign flag, which is set to 1 if an operation produces a result with its highest bit set. (In other words, negative in two's complement arithmetic). This is described as P (plus) when it's 0, and M (minus) when it's 1.

4 Try &BB1E: on entry, A contains the key number. On exit, carry is false if the key was pressed (and C contains the status of SHIFT and CTRL), true if it wasn't. A and HL are corrupt.

5 Assembly Line is still with us - see page 16.

## TOP TIPS

### Plus points

Keith Woods's article 'revealing how to make the most out of your Plus' in AA112 contained a number of inaccuracies...

First: before poking the ASIC RAM with any values from BASIC, you must set MEMORY &3FFF first - otherwise the computer will very probably crash. This is such an elementary point I'm amazed it wasn't mentioned. You must also lock the ASIC after making changes to colours and such like.

To do this, send the code in the 'Listing 1', but with the &EE at the end changed to any other number.

Keith's method (which is oddly identical to that used in the Blue Impulse PD sprite editor) is also unsuitable for any serious BASIC programming, because, as he admits, it slows down keyboard and disc operations.

What the POKE &6800,1 actually does is set a PRI (Programmable Raster Interrupt) at scan line 1 - the top of the screen. This is possibly the worst place to put it, as there is a CPC firmware interrupt at this point, too. So the PRI barges in and wrecks the firmware's keyboard scanning.

Therefore, to stop the computer from resetting colours to standard CPC values, you need to modify the firmware interrupt. Rob Scott, STS Software

And here's some code to do exactly that...

Type CALL &8000 to turn the firmware interrupt off (and hence Plus colours on), and CALL &800C to turn the firmware interrupt back on.

6 The routine is at &BBDE, and the pen colour should be in A on entry.

7 Yes - although it is possible to wire them up to the 5v line from the monitor if you know what you are doing.

8 It is, although it takes quite a bit of effort and you need to do some serious hacking with the operating system ROM.

You need to disassemble the CAS READ firmware routine. On all CPCs except the 464 it is located at &29A6. This calls a routine at &2A89, just before the end of this routine (at the XOR (HL) opcode). A contains the actual sync byte of the file so copy out the &29A6 routine changing the CALL &2A89 to call a copy of the routine which stores A somewhere in RAM before XORing with (HL). You can call the originals of all the other sub-routines used by the &29A6

### 10 MEMORY &3FFF

```
20 FOR n=&8000 TO &8016: READ a$
30 POKE n,VAL("&"+a$): NEXT
40 DATA 21,17,80,01,FF,81,11,12,80,C3,D7,BC
50 DATA 21,17,80,C3,DD,BC,AF,32,F8,B7,C9
```

For an example of top-notch Plus coding, take a look at Rob's *Genesis* demo.

### Partial saviour

When saving memory directly, of course, it's easy just to pick the chunk you want and save that area only. But if you want to save a BASIC program, you have to save the whole lot all at once, don't you?

No, you don't. (Confess, you knew that was coming). It's possible to save, for example, a set of sub-routines without having to save or delete the main program. If one sub-routine is between lines 2000 and 2070, and another between 2700 and 2780, you type:

```
OPENOUT _SUBROUTS.MOD
LIST 2000-2070,&9
LIST 2700-2780,&9
CLOSEOUT
```

Note the anomalous positioning of the #9 at the end, not the middle, of the LIST statement.

It's a good idea to save these with a different file extension than .BAS, if you are using a disc system, otherwise you can get confused as to which file is a sub-routine and which is a collection of sub-routines.

Many programmers, in BASIC as well as machine code, find it profitable to save time by building up a disc of useful sub-routines.



